



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Aviation Safety

800 Independence Ave  
Washington, DC 20591

In the matter of the petition of

**GULFSTREAM AEROSPACE  
CORPORATION**

For an exemption from § 43.1(b)(1)  
of Title 14, Code of Federal  
Regulations

Exemption No. **18407**  
Regulatory Docket No. **FAA-2019-0095**

**GRANT OF EXEMPTION**

By letter dated February 14, 2019, Mr. Ronald Witkowski, Gulfstream Director of Quality – Regulatory Compliance, Gulfstream Aerospace Corporation (Gulfstream), 500 Gulfstream Road, M/C PS-1, Savannah, GA 31408 petitioned the Federal Aviation Administration (FAA) on behalf of Gulfstream for an exemption from § 43.1(b)(1) of Title 14, Code of Federal Regulations (14 CFR). The proposed exemption, if granted, would exempt Gulfstream from the applicable requirements in part 43 and allow it to conduct maintenance, preventive maintenance, rebuilding and alteration activities in accordance with its Production Certificate Quality Assurance Manual for its GV model aircraft N532SP, serial number 632 (“GV 632”).

**The petitioner requests relief from the following regulation:**

Section 43.1(b)(1) prescribes that:

(b) This part does not apply to—

- (1) Any aircraft for which the FAA has issued an experimental certificate, unless the FAA has previously issued a different kind of airworthiness certificate for that aircraft.

**The petitioner supports its request with the following information:**

Gulfstream operates numerous aircraft under the provisions of appropriately issued special airworthiness certificates in the experimental certificate category for various purposes (i.e. research and development, to show compliance, market surveys, etc.) to support various aircraft platforms for which Gulfstream is pursuing an FAA type certificate (TC) and production certificate (PC) approval (“New Aircraft Certification Programs”). In addition to supporting the New Aircraft Certification Programs, Gulfstream operates three (3) existing model aircraft (the “Sustaining Flight Test Aircraft”). These aircraft include a Gulfstream GIV-X (N401SR, serial number 4001) (“G450 4001”); a GV model aircraft (N532SP, serial number 632) (“GV 632”), and a GVI (N650GX, serial number 6001) (“G650 6001”). The Sustaining Flight Test Aircraft are all operated under the provisions of a special airworthiness certificate in the experimental category for various purposes. Of the three (3) aircraft making up the Sustaining Flight Test Aircraft, only GV 632 has ever previously held a Standard Airworthiness Certificate. Specifically, GV 632 was issued a standard airworthiness certificate in February 2001. That certificate was surrendered six (6) months later in August 2001 when the aircraft was heavily modified for various research and development/certification activities. Ever since August 2001, GV 632 continues to be uniquely modified and has been operated only under an experimental certificate.

As described above, Gulfstream’s flight test organization may operate up to fifteen (15) aircraft at a given time for experimental purposes. These include aircraft supporting both New Aircraft Certification Programs and Sustaining Flight Test Aircraft. Additionally, aircraft are routinely operated under special airworthiness certificates to conduct production flight testing associated with Gulfstream’s manufacturing operations. Except for GV 632, all activities associated with aircraft operating under special airworthiness certificates are conducted in accordance with procedures contained in Gulfstream’s CFR part 21 FAA-approved PC Quality Assurance Manual (the “PC Quality Manual”). Due to the previously described six (6) month period in 2001 that GV 632 held a standard airworthiness certificate, § 43.1(b)(1) requires that this single aircraft must be handled differently by Gulfstream than all other Gulfstream-owned aircraft operating under special airworthiness certificates.

Per § 43.1(b)(1), activities conducted on GV 632 must be performed at an FAA-authorized Gulfstream part 145 repair station. Practically speaking, GV 632 is owned and operated by Gulfstream’s Flight Test department and hangered accordingly at its company-assigned facilities. Consequently, Gulfstream extends the footprint of its Savannah part 145 Gulfstream repair station (Certificate #G02R813X) to include Gulfstream’s Flight Test operations hangar area. Having to maintain GV 632 in accordance with part 43 within an environment that predominantly operates under the provisions of Gulfstream’s PC Quality Manual introduces the potential for human factor errors. Gulfstream desires to eliminate this potential human factor error by obtaining an exemption to § 43.1(b)(1) solely for the purposes of allowing activities on GV 632 to be conducted in accordance with Gulfstream’s PC Quality Manual. Granting this limited exemption for GV 632 will not decrease the level of care that Gulfstream will take while conducting activities associated with it. In support of this belief,

Gulfstream relies on the fact that Gulfstream's PC Quality Manual includes many of the same provisions as Gulfstream's repair station manuals and that the procedures and activities conducted under this PC Quality Manual have provided an acceptable level of safety for many years, as the FAA has seen through ongoing oversight.

**The FAA's analysis is as follows:**

A summary of the petition was published in the *Federal Register* on May 22, 2019 (84 FR 23628). No comments were received.

The FAA has carefully evaluated the information provided by the petitioner and finds that an equivalent level of safety will be maintained in accordance with the regulations in part 43 from which relief is being sought. Currently, the operation of GV 632 is in accordance with its FAA issued experimental certificate. The FAA promulgated § 43.1(b)(1) [then § 43.1(b)] to exclude experimental aircraft from part 43 requirements because these aircraft present unique maintenance requirements which can be met only on a case-by-case basis. See 29 FR 5449, 5450 (Apr. 23, 1964). Ordinarily, these maintenance challenges would not be present for an experimental aircraft that has been previously issued a different kind of airworthiness certificate. Here, however, despite previously having a standard airworthiness certificate the GV 632 presents unique maintenance requirements because it was heavily modified six months after it received the initial standard airworthiness certificate, and because of the impracticalities and safety concerns with maintaining several experimental aircraft under different programs.

The FAA finds that GV 632 can be operated safely with maintenance being conducted in accordance with Gulfstream's PC Quality Manual for the purposes of testing and evaluation. This method has been used over the years to ensure the safe operation of aircraft under similar production certificates. Additionally, allowing GV 632 to be maintained in accordance with Gulfstream's PC Quality Manual instead of part 43 helps to reduce potential human factor errors, as GV 632 would be maintained in accordance with the same PC Quality Manual as the rest of Gulfstream's aircraft operating under special airworthiness certificates and hangered in the same company-assigned facility as GV 632.

Further, although the execution of an FAA Form 337 would typically be required after the performance of major repairs and major alterations on these aircraft, the FAA concludes that the actions proposed to be taken by the petitioner will provide an equivalent level of safety to the requirements of § 43.1(b)(1). Any execution of the Designated Engineering Representative-approved FAA Form 8110-3 and the retention of modification records by Gulfstream shall be kept in a secure and controlled environment. A limitation precluding subsequent use of these aircraft by another party will ensure that the safety intent embodied in § 43.9(d) (maintaining a record of alterations) is achieved. This record keeping is imperative in the potential event that GV 632 is recertificated and issued a standard airworthiness certificate in the future.

Additionally, the FAA has determined it is in the public interest to grant the relief requested to facilitate the conduct of research and development necessary for the support of critical government, civilian, and military programs.

### **The FAA's Decision**

In consideration of the foregoing, I find that a grant of exemption is in the public interest and will not adversely affect safety. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 106(f), 40113, and 44701, delegated to me by the Administrator, Gulfstream Aerospace Corporation is granted an exemption from 14 CFR § 43.1(b)(1) to the extent necessary to allow Gulfstream to conduct maintenance, preventive maintenance, rebuilding and alteration activities in accordance with its Production Certificate Quality Assurance Manual for its GV model aircraft N532SP, serial number 632 ("GV 632"), subject to the conditions and limitations listed below.

### **Conditions and Limitations**

1. The relief provided by this exemption is applicable to only the following aircraft that is issued an experimental certificate for the purpose of research and development:

GV model aircraft N532SP, serial number 632 ("GV 632").

2. All major alterations to the aircraft must have an FAA Form 8110-3, Statement of Compliance with Airworthiness Standards, for each alteration package and contain the Instructions for Continued Airworthiness (ICA).
3. All aircraft documents pertaining to major alterations must consist of Structural Substantiation Reports, Sketches, Drawings, Electrical Load Analysis, Electrical Wiring Diagrams, Weight & Balance, and Safety of Flight Reports. These documents must be kept on file in a controlled environment (e.g., in Gulfstream's Inspection & Engineering Department). All maintenance, modifications, alterations, and repairs, must be recorded in the aircraft's logbooks. These records must be retained for the life of the aircraft.
4. Gulfstream Aerospace Corporation will retain sole ownership of the aircraft during the period of this exemption. If the aircraft is transferred, it may not be operated unless records of those major repairs and major alterations performed during the period of this exemption have been recorded and disposed of in a manner acceptable to the FAA.
5. This exemption is not valid for operations outside of the United States of America.

This exemption terminates on December 31, 2021, unless sooner superseded or rescinded.

Issued in Washington, D.C., on December 4, 2019.

/s/

Robert C. Carty

Deputy Executive Director, Flight Standards Service